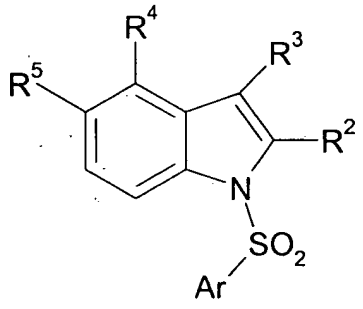
Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the Application:

Listing of Claims:

1. (Currently Amended) A compound of formula (I):



(I)

wherein

Ar is

(1) phenyl,

(2) naphthyl,

(3) a 5- to 10-membered monocyclic or bicyclic heterocyclic ring having 1 to 4 heteroatoms selected from the group consisting of oxygen, sulfur, or nitrogen, or

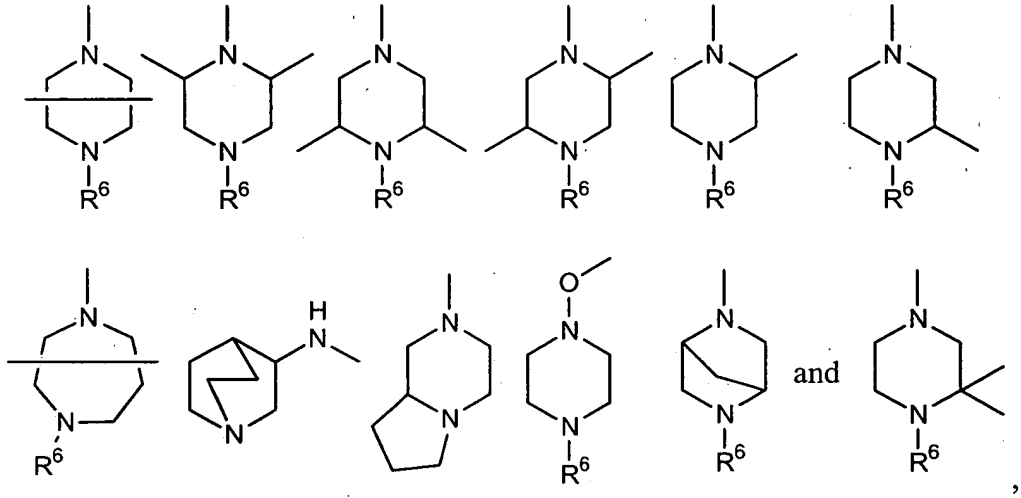
(4) $-R^9$-phenyl;

wherein the phenyl, naphthyl, or heterocyclic ring is optionally substituted with halogen, C_{1-6} alkyl, CF_3, hydroxyl, C_{1-6} alkoxyl, OCF_3, $COCF_3$, CN, NO_2, phenyloxy, phenyl, C_{1-6} alkylsulfonyl, C_{2-6} alkenyl, $-NR^7R^8$, C_{1-6} alkylcarboxyl, formyl, $-C_{1-6}$ alkyl-NH-CO-phenyl, $-C_{1-6}$ alkyl-CO-NH-phenyl, $-NH-CO-C_{1-6}$ alkyl, $-CO-NR^7R^8$, or SR^7; wherein each of R^7 and R^8 is independently H or C_{1-6} alkyl; and R^9 is C_{1-6} alkyl or C_{2-6} alkenyl, either of which is optionally substituted with phenyl or phenyloxy;

R^2 is H, phenyl, I, or C_{1-6} alkyl;

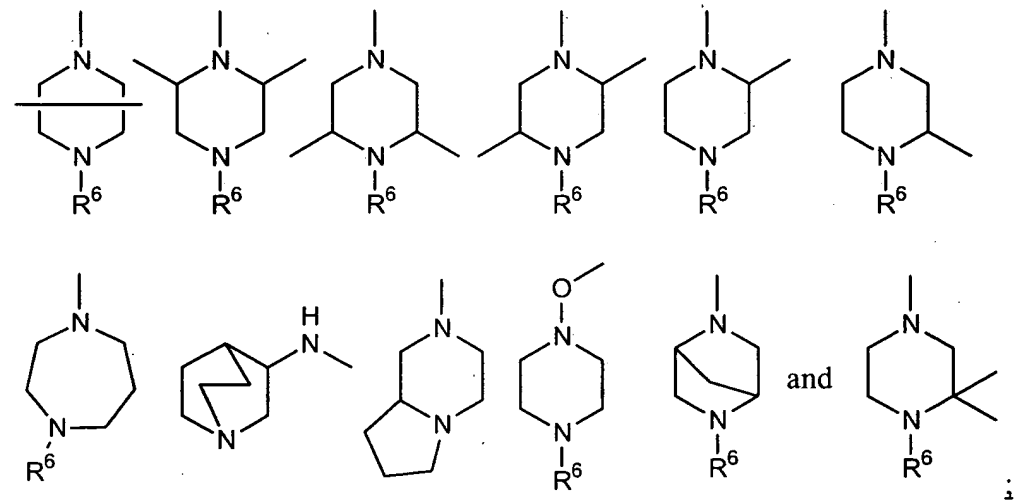
R^3 is H or 3-(1-azabicyclo[2.2.2]oct-2-en)yl;

R^4 is selected from the group consisting of:



wherein R^6 is H, C_{1-6} alkyl, or benzyl; and

R^5 is H, hydroxy, C_{1-3} alkoxy, F, NO_2, CF_3, OCF_3, or is selected from the group consisting of:



or a pharmaceutically acceptable salt, hydrate, or stereoisomer thereof,

with the proviso that when R^2 is alkyl, R^4 is not H.

2. (Currently Amended) The compound according to claim 1, wherein

Ar is

(1) phenyl that is unsubstituted or optionally mono- or poly-substituted with halogen, C_{1-6} alkyl, CF_3, hydroxyl, C_{1-6} alkoxyl, OCF_3, CN, NO_2, phenyloxyl, phenyl, alkylsulfonyl, C_{1-6} alkenyl, $-NH_2$, $-NHR^7$, $-NR^7R^8$, C_{1-6} alkylcarboxyl, formyl, $-NH-CO-C_{1-6}$ alkyl, $-CO-NR^7R^8$, or SR^7 wherein each of R^7 and R^8 is independently H or C_{1-6} alkyl;

(2) 1-naphthyl or 2-naphthyl that is unsubstituted or optionally mono- or poly-substituted with halogen, C_{1-6} alkyl, CF_3, hydroxyl, C_{1-6} alkoxyl, OCF_3, CN, NO_2, phenyloxyl, phenyl, alkylsulfonyl, C_{1-6} alkenyl, $-NH_2$, $-NHR^7$, $-NR^7R^8$, C_{1-6} alkylcarboxyl, formyl, $-NH-CO-C_{1-6}$ alkyl, $-CO-NR^7R^8$, or SR^7 wherein each of R^7 and R^8 is independently H or C_{1-6} alkyl;

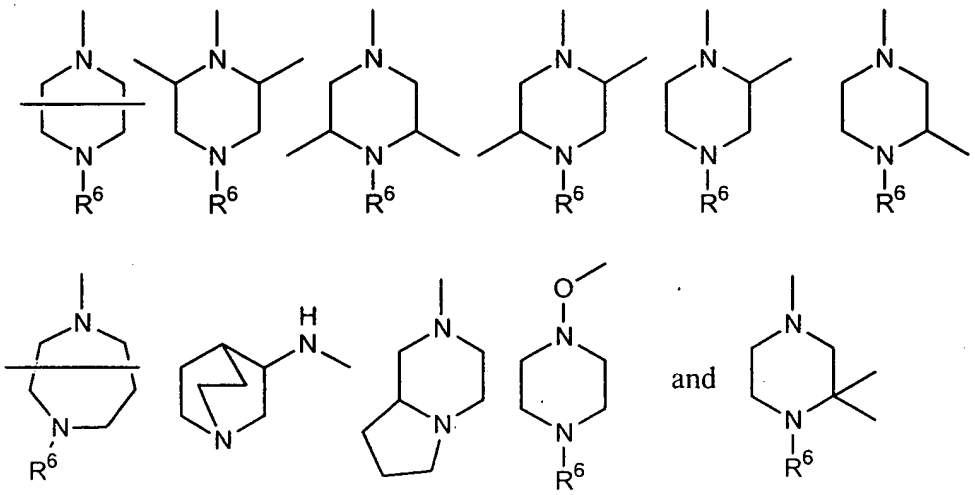
(3) cynnamoyl;

(4) benzyl;

(5) 1,1-diphenylethyl;

(6) a monocyclic or bicyclic heterocyclic ring selected from the group consisting of furyl, pyrrolyl, triazolyl, diazolyl, oxazolyl, thiazolyl, oxadiazolyl, isothiazolyl, isoxazolyl, thiadiazolyl, pyrimidyl, pyrazinyl, thienyl, imidazolyl, pyrazolyl, indolyl, quinolinyl, isoquinolinyl, benzofuryl, benzothienyl, and benzoxadiazolyl, said heterocyclic ring being optionally mono- or di-substituted substituted with halogen or C_{1-6} alkyl;

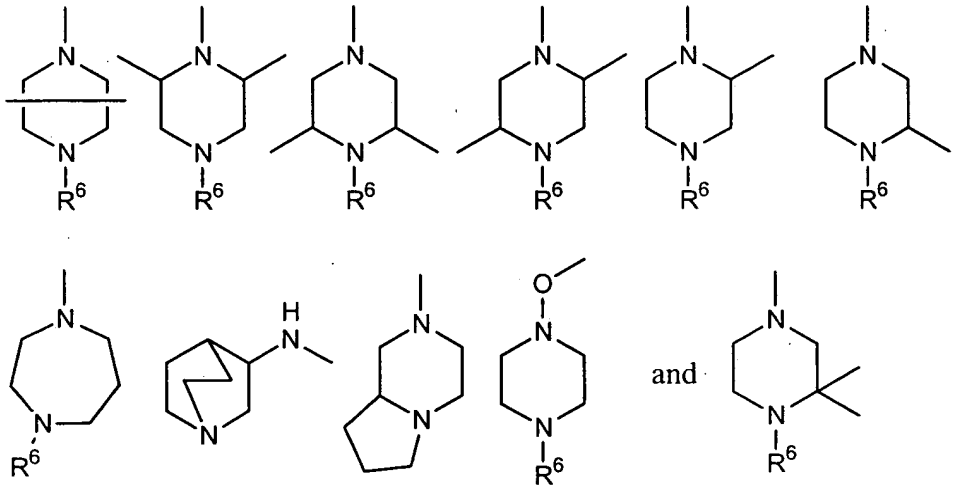
R^4 is selected from the group consisting of:



;

wherein R^6 is H, C_{1-6} alkyl, or benzyl; and

R^5 is H, hydroxy, C_{1-3} alkoxy, F, NO_2, CF_3, OCF_3 or is selected from the group consisting of:



3. (Currently Amended) A compound according to claim 1, wherein

Ar is

(1) phenyl,

(2) 1-naphthyl or 2-naphthyl,

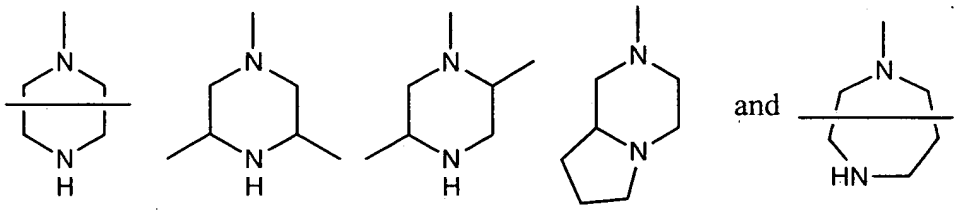
(3) a 5- to 10-membered monocyclic or bicyclic heterocyclic ring having 1 to 4 heteroatoms selected from the group consisting of oxygen, sulfur, or nitrogen, or

(4) $-R^9$-phenyl;

wherein the phenyl, naphthyl, or heterocyclic ring is optionally substituted with F, Cl, Br, C_{1-6} alkyl, CF_3, hydroxyl, C_{1-6} alkoxyl, OCF_3, phenyl, C_{2-6} alkenyl, $-NR^7R^8$, $-NH-CO-C_{1-6}$ alkyl, or SR^7, wherein each of R^7 and R^8 is independently H or C_{1-6} alkyl; and R^9 is C_{1-2} alkyl;

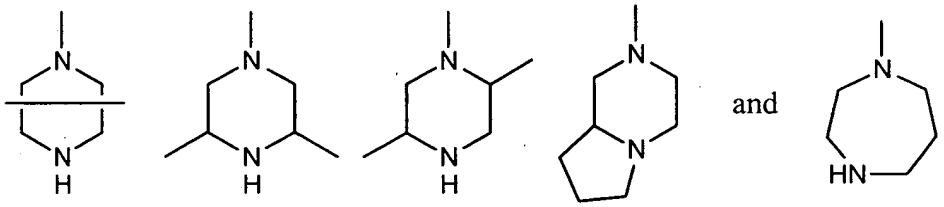
R^2 is H, phenyl, I, or C_{1-6} alkyl;

R^4 is selected from the group consisting of:



; and

R^5 is C_{1-3} alkoxy or a heterocyclic ring selected from the group consisting of:



4. (Original) A compound according to claim 1, wherein Ar is phenyl, optionally substituted with F, Cl, Br, methyl, CF_3, C_{1-4} alkoxyl, OCF_3, CN, NO_2, phenyloxy, phenyl, methylsulfonyl, or $-NR^7R^8$, where each of R^7 and R^8 is independently H or methyl.

5. (Original) A compound according to claim 1, wherein Ar is 1-naphthyl or 2-naphthyl, each of which is optionally substituted with F, Cl, Br, methyl, CF_3, C_{1-4} alkoxyl, OCF_3, CN, NO_2, phenyloxy, phenyl, methylsulfonyl, or $-NR^7R^8$, where each of R^7 and R^8 is independently H or methyl.

6. (Original) A compound according to claim 1, wherein Ar is a heterocyclic ring selected from the group consisting of furyl, pyrrolyl, triazolyl, diazolyl, oxazolyl, thiazolyl, oxadiazolyl, isothiazolyl, isoxazolyl, thiadiazolyl, pyridinyl, pyrimidyl, pyrazinyl, thienyl, imidazolyl, pyrazolyl, indolyl, quinolinyl, isoquinolinyl, benzofuryl, benzothienyl, and benzoxadiazolyl, each of which is optionally substitiuted with halogen, C_{1-6} alkyl, CF_3, hydroxyl, C_{1-6} alkoxyl, OCF_3, CN, NO_2, phenyloxy, phenyl, C_{1-6} alkylsulfonyl, C_{2-6} alkenyl, $-NR^7R^8$, C_{1-6} alkylcarboxyl, formyl, $-NH-CO-C_{1-6}$ alkyl, $-CO-NR^7R^8$, or SR^7; wherein each of R^7 and R^8 is independently H or C_{1-6} alkyl.

7. (Original) A compound according to claim 1, wherein Ar is a heterocyclic ring selected from the group consisting of pyridinyl, thienyl, imidazolyl, pyrazolyl, benzothienyl, and benzoxadiazolyl, each of which is optionally substituted with halogen or C_{1-6} alkyl.

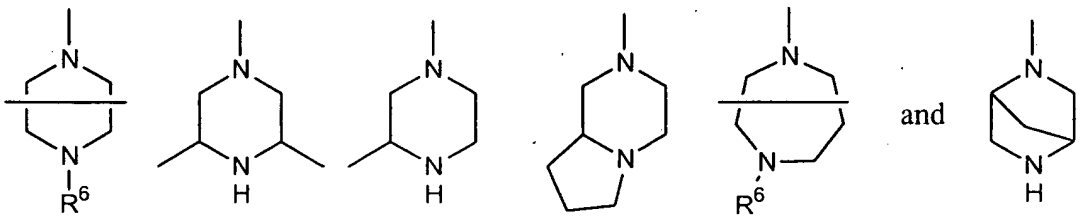
8. (Original) A compound according to claim 1, wherein Ar is 2-pyridyl, 3-pyridyl, or 4-pyridyl.

9. (Original) A compound according to claim 1, wherein Ar is a 5- to 7-membered aromatic, partially saturated, or completely saturated heterocyclic ring having 1 to 4 heteroatoms selected from the group consisting of O, S, or NR^{10}, where R^{10} is H, C_{1-6} alkyl, -CO-CF_3, or absent.

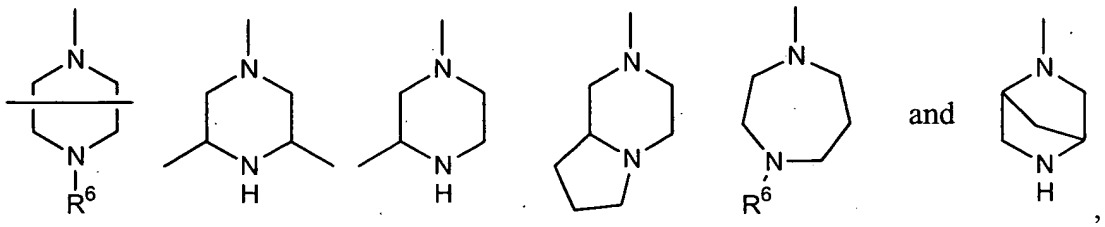
10. (Original) A compound according to claim 1, wherein Ar is -R^9-phenyl, wherein R^9 is C_{1-3} alkyl or C_{2-3} alkenyl, either of which is optionally substituted with phenyl or phenyloxy, each phenyl being optionally substituted with F, Cl, Br, methyl, CF_3, C_{1-4} alkoxyl, OCF_3, CN, NO_2, phenyloxy, phenyl, methylsulfonyl, or -NR^7R^8; and each of R^7 and R^8 being independently H or C_{1-6} alkyl.

11. (Original) A compound according to claim 1, wherein each of R^2 and R^3 is H.

12. (Currently Amended) A compound according to claim 1, wherein R^4 is independently a heterocyclic ring selected from the group consisting of:

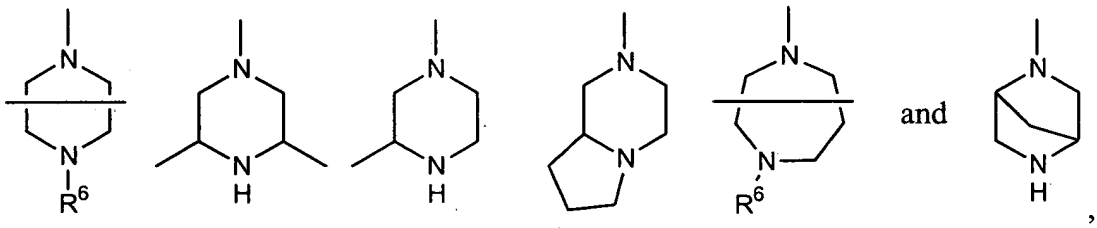


, and R^5 is independently H or a heterocyclic ring selected from the group consisting of:

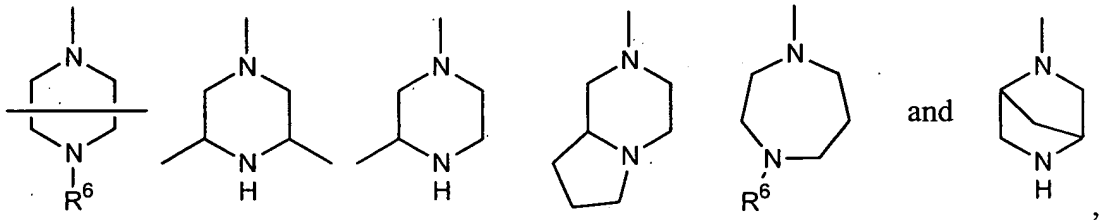


wherein R^6 is H, C_{1-3} alkyl; or benzyl.

13. (Currently Amended) A compound according to claim 1, wherein Ar is phenyl, optionally substituted with F, Cl, Br, methyl, CF_3, C_{1-4} alkoxyl, OCF_3, CN, NO_2, phenyloxy, phenyl, methylsulfonyl, or $-NR^7R^8$ where each of R^7 and R^8 is independently H or methyl; each of R^2 and R^3 is H; and R^4 is independently a heterocyclic ring selected from the group consisting of:

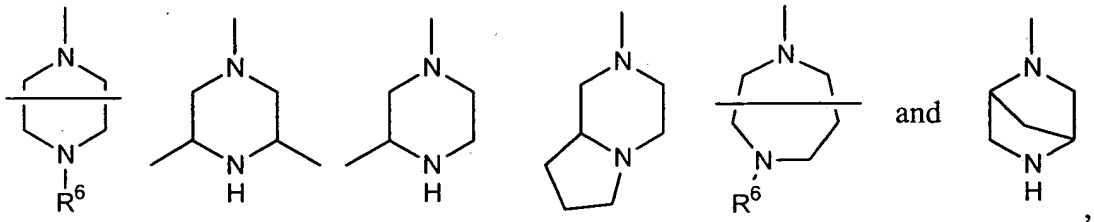


, and R^5 is independently H or a heterocyclic ring selected from the group consisting of:

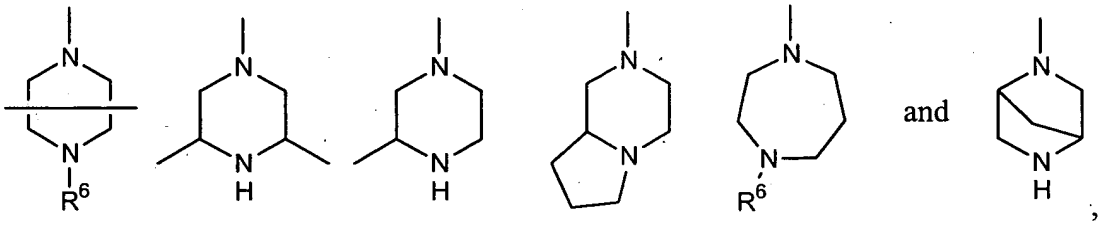


wherein R^6 is H, C_{1-3} alkyl, or benzyl.

14. (Currently Amended) A compound according to claim 1, wherein Ar is 1-naphthyl or 2-naphthyl, each of which is optionally substituted with F, Cl, Br, methyl, CF_3, C_{1-4} alkoxyl, OCF_3, CN, NO_2, phenyloxy, phenyl, methylsulfonyl, or $-NR^7R^8$, where each of R^7 and R^8 is independently H or methyl; each of R^2 and R^3 is H; and R^4 is independently a heterocyclic ring selected from the group consisting of:



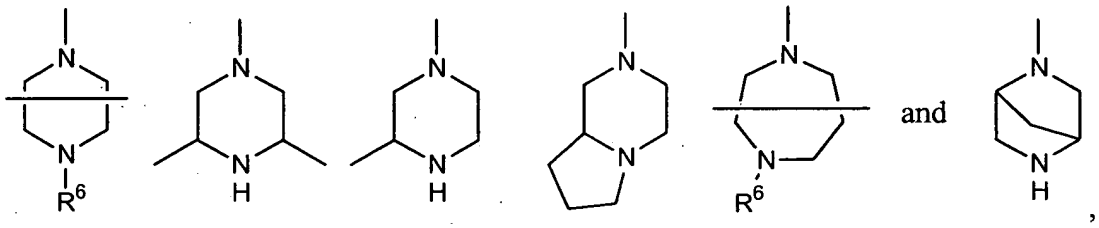
, and R^5 is independently H or a heterocyclic ring selected from the group consisting of:



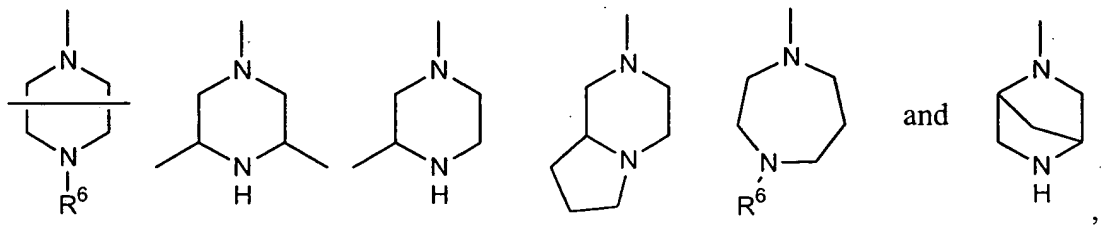
,

wherein R^6 is H, C_{1-3} alkyl, or benzyl.

15. (Currently Amended) A compound according to claim 1, wherein Ar is a heterocyclic ring selected from the group consisting of pyridinyl, thienyl, imidazolyl, pyrazolyl, benzothienyl, and benzoxadiazolyl, each being optionally substituted with halogen or C_{1-6} alkyl; each of R^2 and R^3 is H; and R^4 is independently a heterocyclic ring selected from the group consisting of:



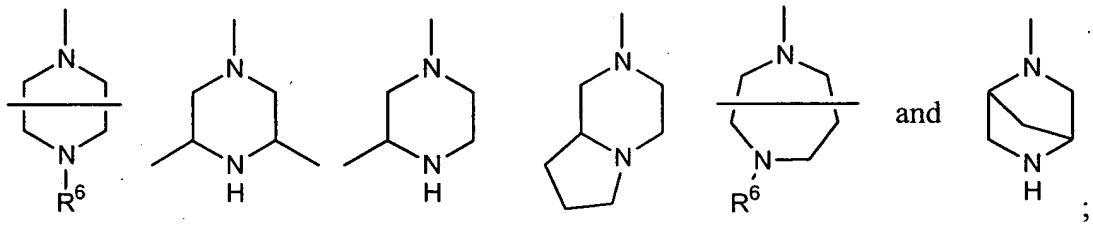
, and R^5 is independently H or a heterocyclic ring selected from the group consisting of:



,

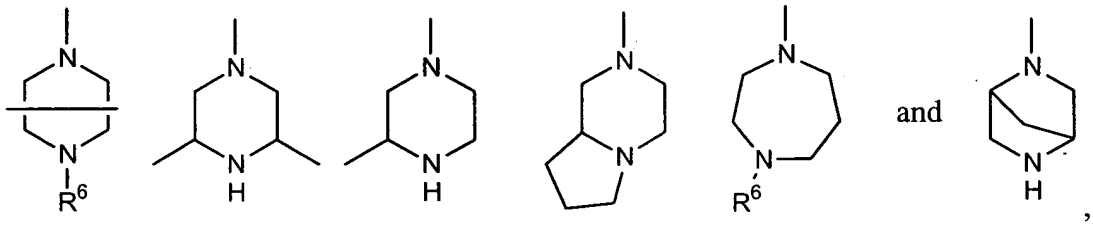
wherein R^6 is H, C_{1-3} alkyl, or benzyl.

16. (Currently Amended) A compound according to claim 1, wherein Ar is 2-pyridyl, 3-pyridyl, or 4-pyridyl; each of R^2 and R^3 is H; and R^4 is independently a heterocyclic ring selected from the group consisting of:



;

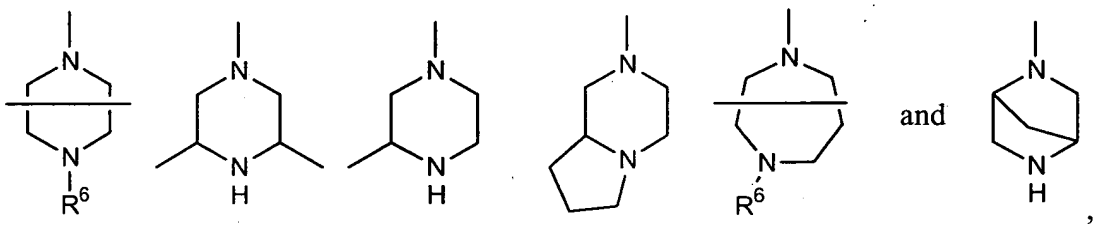
and R^5 is independently H or a heterocyclic ring selected from the group consisting of:



,

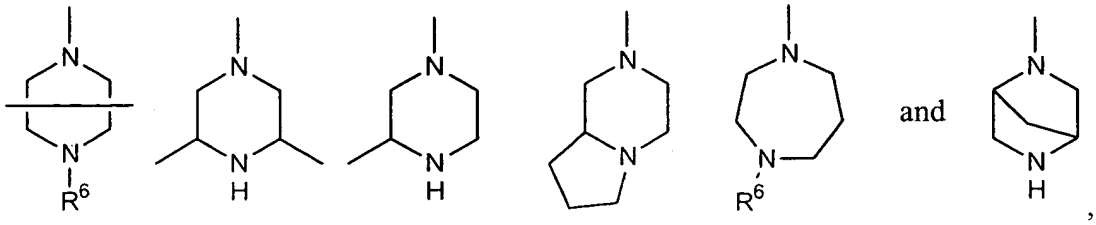
wherein R^6 is H, C_{1-3} alkyl, or benzyl.

17. (Currently Amended) A compound according to claim 1, wherein Ar is -R^9-phenyl; each of R^2 and R^3 is H; and R^4 is independently a heterocyclic ring selected from the group consisting of:



, and

R^5 is independently H or a heterocyclic ring selected from the group consisting of:



,

wherein R^6 is H, C_{1-3} alkyl, or benzyl; R^9 is C_{1-3} alkyl or C_{2-3} alkenyl, either of which is optionally substituted with phenyl or phenyloxy; each phenyl being optionally substituted with F, Cl, Br, methyl, CF_3, C_{1-4} alkoxyl, OCF_3, CN, NO_2, phenyloxy, phenyl, methylsulfonyl, or -NR^7R^8; and each of R^7 and R^8 being independently H or C_{1-6} alkyl.

18. (Currently Amended) A compound selected from the group consisting of:

~~1-phenylsulfonyl-4-piperazinylindole hydrochloride,~~

~~1-[(2,5-dimethoxyphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~1-(mesitylsulfonyl)-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~1-(1-naphthylsulfonyl)-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~N,N-dimethyl-5-{[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl}-1-naphthalenamine hydrochloride,~~

~~1-[(4-propoxyphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~1-[(2,5-dichloro-3-thienyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~1-[(4-methoxyphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~1-[(2,4-difluorophenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~1-([1,1'-biphenyl]-4-ylsulfonyl)-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~1-[(3,4-dimethoxyphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~5-methyl-2-methoxyl-{[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl}phenyl ether hydrochloride,~~

~~1-[(2,5-dichlorophenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~1-[(5-chloro-1,3-dimethyl-1H-pyrazol-4-yl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~1-[(3-chloro-2-methylphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~2-chloro-5-(4-{[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl}phenoxy)benzonitrile hydrochloride,~~

~~4-bromo-2-{[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl}phenyl methyl ether hydrochloride,~~

~~4-(1-piperazinyl)-1-(3-pyridinylsulfonyl)-1H-indole hydrochloride,~~

~~7-{[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl}-2-(trifluoroacetyl)-1,2,3,4-tetrahydroisoquinoline hydrochloride,~~

~~methyl 2-{[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl}phenyl sulfone hydroch~~loride,

~~1-[(4-fluorophenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~4-(4-methyl-1-piperazinyl)-1-(4-methylbenzenesulfonyl)-1H-indole hydrochloride hydrochloride,~~

~~4-piperazino-N-(4-trifluoromethyl)phenylsulfonyl)indole hydrochloride,~~

~~4-(3-methylpiperazine)-(N-(4-trifluoromethyl)phenylsulfonyl)indole dihydrochloride,~~

~~4-(4-methyl-1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,~~

~~4-(4-ethyl-1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,~~

~~4-(1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,~~

4-(5-aza-indolizidinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,

~~4-(4-methyl-1-homopiperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,~~

4-(3-methyl-1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,

4-(*cis*-3,5-dimethyl-1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,

~~4-(4-isopropyl-1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,~~

4-((1S,4S)-2-methyl-2,5-diazabicyclo[2.2.1]heptyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride, and

~~4-(4-methyl-1-homopiperazinyl)-1-(benzenesulfonyl)-1H-indole hydrochloride,~~

4-(*cis* 3,5-dimethyl-1-piperazinyl)-1-(benzenesulfonyl)-1H-indole hydrochloride,

~~4-(4-ethyl-1-piperazinyl)-1-(benzenesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(4-nitro-benzenesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(4-bromo-benzenesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(4-chloro-benzenesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(*E*-2-phenyl-ethensulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(3-trifluoromethyl-benzenesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(4-cyanobenzenesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(4-chloro-7-chloro-2,1,3-benzoxadiazole sulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(3-cyanobenzenesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(4-phenoxybenzenesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(4-chlorophenylmethanesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(4-methylphenylmethanesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(1,1-diphenylethanesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(4-trifluoromethoxybenzenesulfonyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-1-(5-[(benzoylamino)methyl]thiophene-2-sulfonyl)-1H-indole hydrochloride,~~

~~1-[(N-methyl-1H-imidazol-4-yl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~2-iodo-1-(phenylsulfonyl)-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~2-phenyl-1-(phenylsulfonyl)-4-(1-piperazinyl)-1H-indole hydrochloride,~~

~~4-piperazinyl-2-methyl-1-benzosulfonylindole trifluoroacetate, and~~

~~1-phenylsulfonyl-4-(homopiperazinyl)-indole hydrochloride.~~

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Previously Presented) A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.

23. (Original) A pharmaceutical composition comprising a compound of claim 18 and a pharmaceutically acceptable carrier.

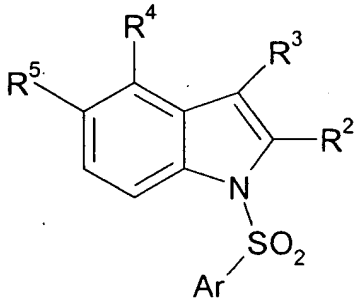
24. (Previously Presented) A method of treatment of a disease mediated by the serotonin related 5-HT_6 receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 1.

25. (Previously Presented) A method of treatment of a disease mediated by the serotonin related 5-HT_6 receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 18.

26. Cancelled.

27. (Original) The method according to claim 24, wherein the disease is a CNS disorder.

28. (Currently Amended) A compound of formula (I):



(I)

wherein

Ar is

(1) phenyl,

(2) naphthyl,

(3) a 5- to 10-membered monocyclic or bicyclic heterocyclic ring having 1 to 4 heteroatoms selected from the group consisting of oxygen, sulfur, or nitrogen, or

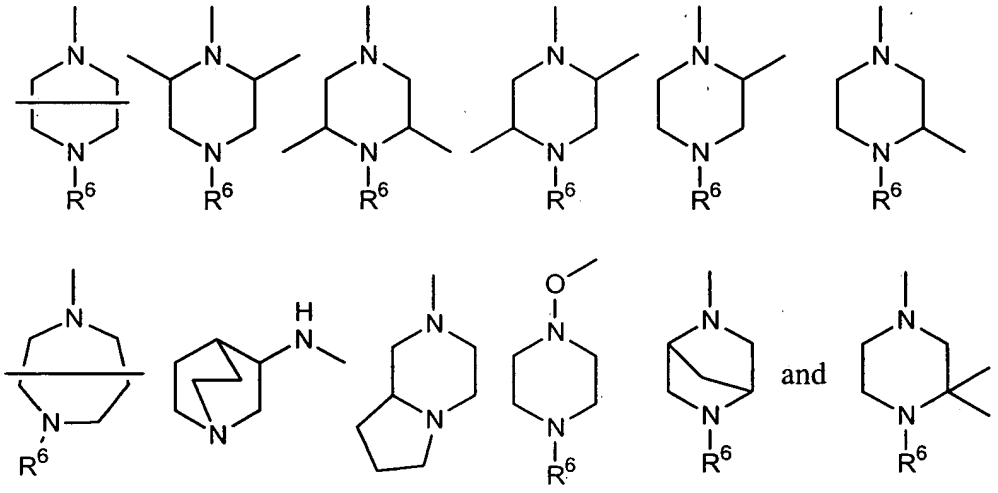
(4) -R^9-phenyl;

wherein the phenyl, naphthyl, or heterocyclic ring is optionally substituted with halogen, C_{1-6} alkyl, CF_3, hydroxyl, C_{1-6} alkoxyl, OCF_3, $COCF_3$, CN, NO_2, phenyloxy, phenyl, C_{1-6} alkylsulfonyl, C_{2-6} alkenyl, -NR^7R^8, C_{1-6} alkylcarboxyl, formyl, -C_{1-6} alkyl-NH-CO-phenyl, -C_{1-6} alkyl-CO-NH-phenyl, -NH-CO-C_{1-6} alkyl, -CO-NR^7R^8, or SR^7; wherein each of R^7 and R^8 is independently H or C_{1-6} alkyl; and R^9 is C_{1-6} alkyl or C_{2-6} alkenyl, either of which is optionally substituted with phenyl or phenyloxy;

R^2 is H, phenyl, I, or C_{1-6} alkyl;

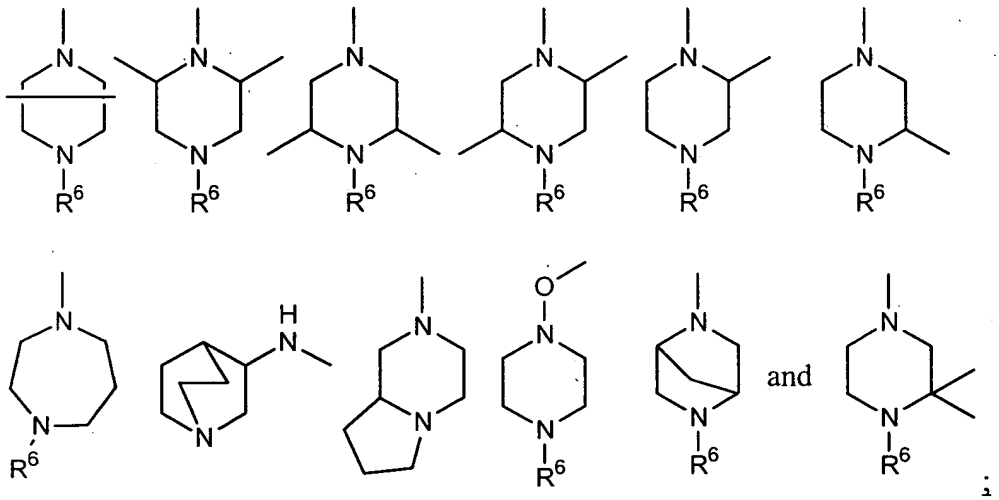
R^3 is H or 3-(1-azabicyclo[2.2.2]oct-2-en)yl;

R^4 is H or is selected from the group consisting of:



wherein R^6 is H, C_{1-6} alkyl, or benzyl; and

R^5 is hydroxy, C_{1-3} alkoxy, F, NO_2, CF_3, OCF_3, or is selected from the group consisting of:



or a pharmaceutically acceptable salt, hydrate, or stereoisomer thereof,
with the proviso that when R^2 is alkyl, R^4 is not H.

29. (Previously Presented) The compound of claim 1, wherein R^5 is H.

30. (Currently Amended) The compound of claim 28, wherein R^4 is H.

31. (Cancelled)

32. (Previously Presented) A compound that is 3-(1-azabicyclo[2.2.2]oct-2-en-3-yl)-1-[(4-fluorophenyl)sulfonyl]-1H-indole.

33. (Previously Presented) A pharmaceutical composition comprising a compound of claim 28 or 30 and a pharmaceutically acceptable carrier.

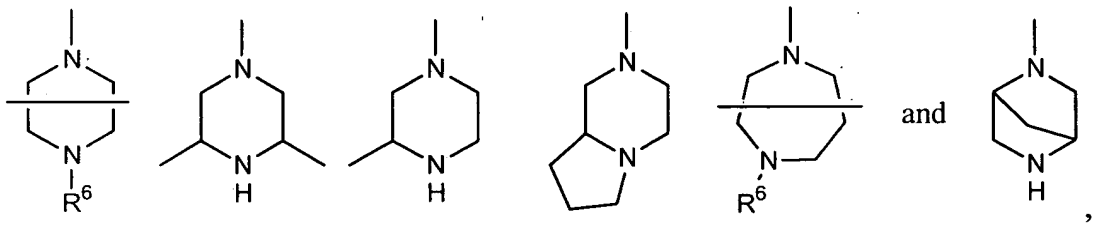
34. (Previously Presented) A method of treatment of a disease mediated by the serotonin related 5-HT_6 receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 28.

35. (Previously Presented) The method of claim 34, wherein the disease is a CNS disorder.

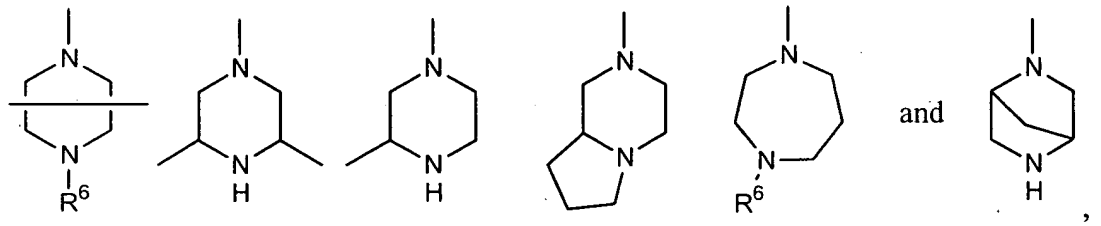
36. (Currently Amended) A method of treating obesity, memory disorder, schizophrenia, Parkinson's disease, depression, ~~or~~ attention deficit hyperactive disorders, or drug abuse comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 1 or 28.

37. (Currently Amended) A method of treating obesity, memory disorder, schizophrenia, Parkinson's disease, depression, or attention deficit hyperactive disorders, or drug abuse comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 29 or 30.

38. (Currently amended) A compound according to claim 28, wherein R^4 is independently H or a heterocyclic ring selected from the group consisting of:



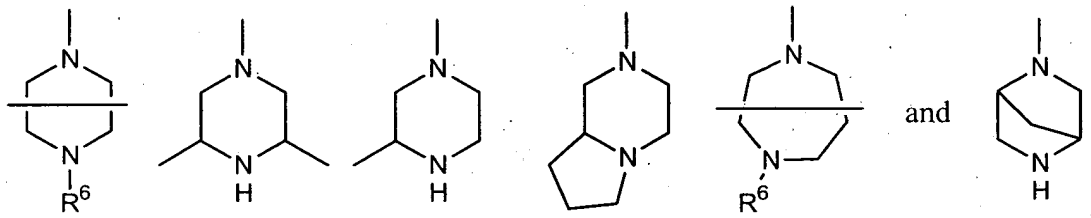
and R^5 is independently a heterocyclic ring selected from the group consisting of:



wherein R^6 is H, C_{1-3} alkyl, or benzyl.

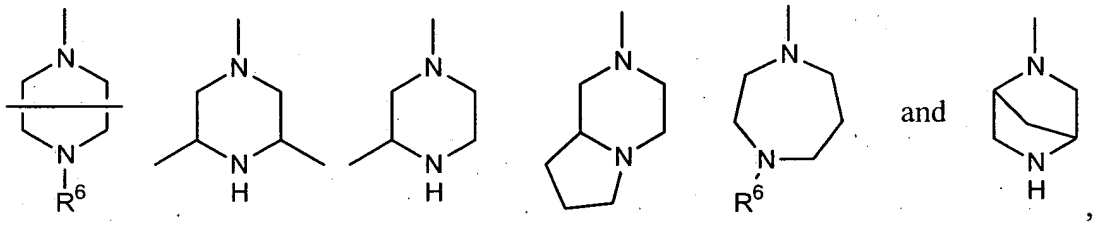
39. (Currently Amended) A compound according to claim 28, wherein Ar is phenyl, optionally substituted with F, Cl, Br, methyl, CF_3, C_{1-4} alkoxyl, OCF_3, CN, NO_2, phenyloxy,

phenyl, methylsulfonyl, or -NR^7R^8 where each of R^7 and R^8 is independently H or methyl; each of R^2 and R^3 is H; and R^4 is independently H or a heterocyclic ring selected from the group consisting of:



, and

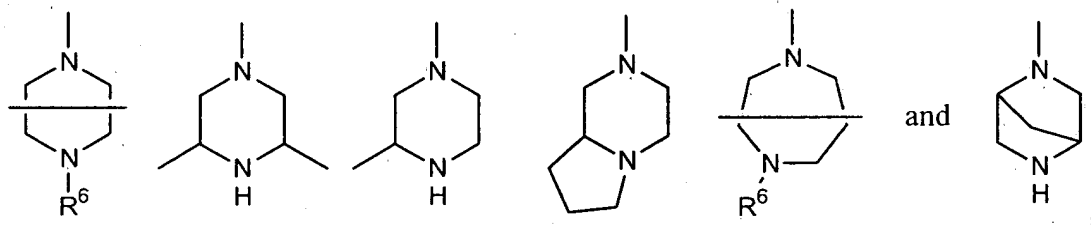
R^5 is independently a heterocyclic ring selected from the group consisting of:



,

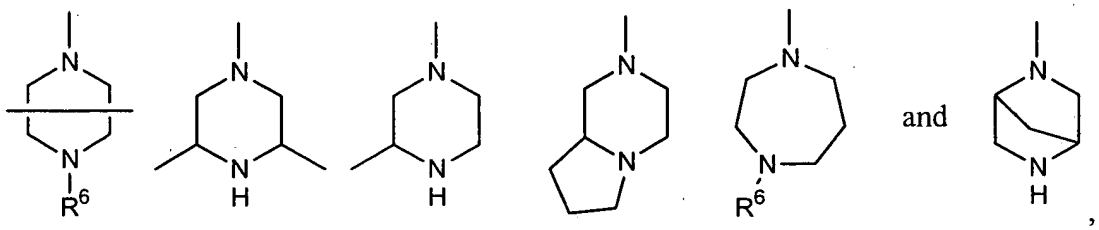
wherein R^6 is H, C_{1-3} alkyl, or benzyl.

40. (Currently Amended) A compound according to claim 28, wherein Ar is 1-naphthyl or 2-naphthyl, each of which is optionally substituted with F, Cl, Br, methyl, CF_3, C_{1-4} alkoxyl, OCF_3, CN, NO_2, phenyloxy, phenyl, methylsulfonyl, or -NR^7R^8, where each of R^7 and R^8 is independently H or methyl; each of R^2 and R^3 is H; and R^4 is independently H or a heterocyclic ring selected from the group consisting of:



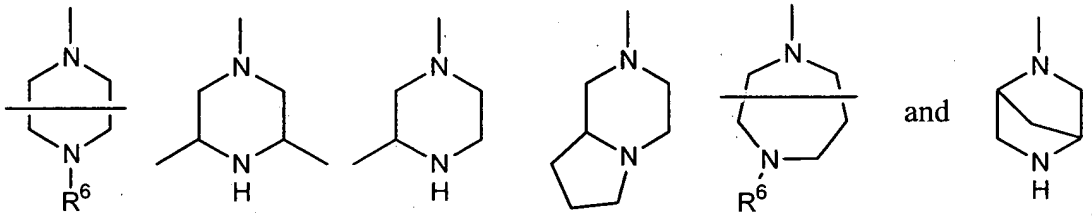
, and

R^5 is independently a heterocyclic ring selected from the group consisting of:

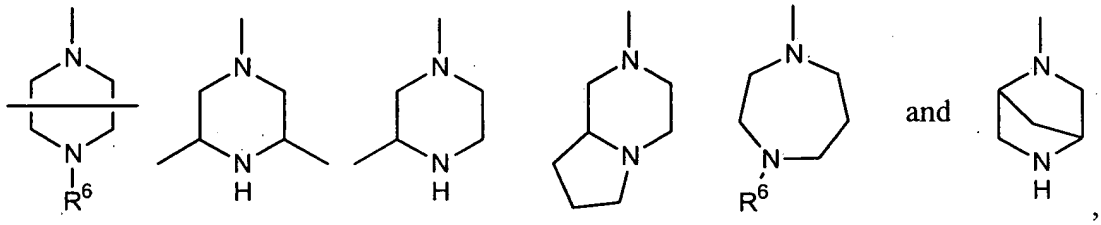


wherein R^6 is H, C_{1-3} alkyl, or benzyl.

41. (Currently amended) A compound according to claim 1, wherein Ar is a heterocyclic ring selected from the group consisting of pyridinyl, thienyl, imidazolyl, pyrazolyl, benzothienyl, and benzoxadiazolyl, each being optionally substituted with halogen or C_{1-6} alkyl; each of R^2 and R^3 is H; and R^4 is independently H or a heterocyclic ring selected from the group consisting of:

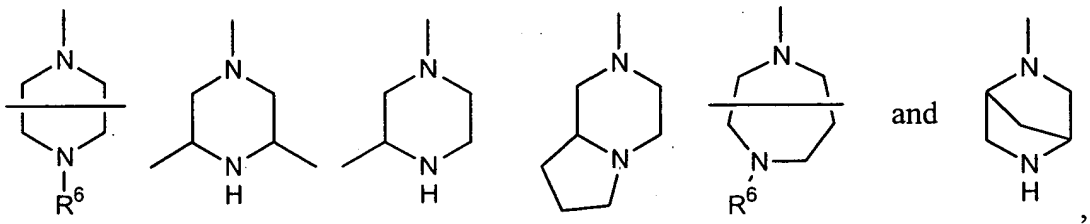


and R^5 is independently a heterocyclic ring selected from the group consisting of:

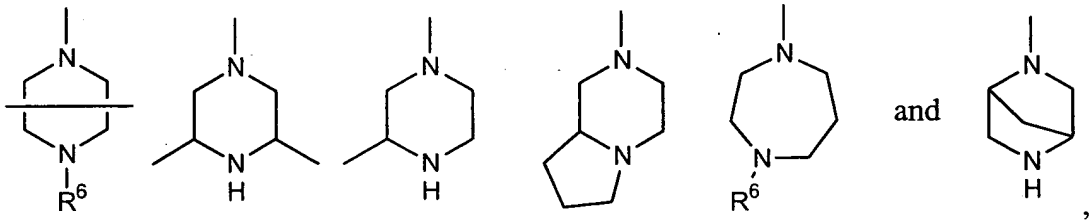


wherein R^6 is H, C_{1-3} alkyl, or benzyl.

42. (Currently Amended) A compound according to claim 28, wherein Ar is 2-pyridyl, 3-pyridyl, or 4-pyridyl; each of R^2 and R^3 is H; and R^4 is independently H or a heterocyclic ring selected from the group consisting of:

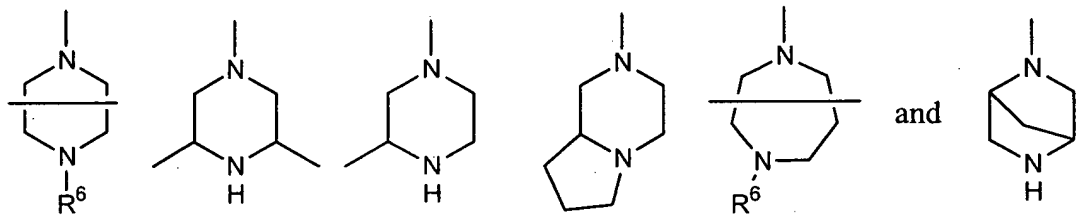


R^5 is independently a heterocyclic ring selected from the group consisting of:

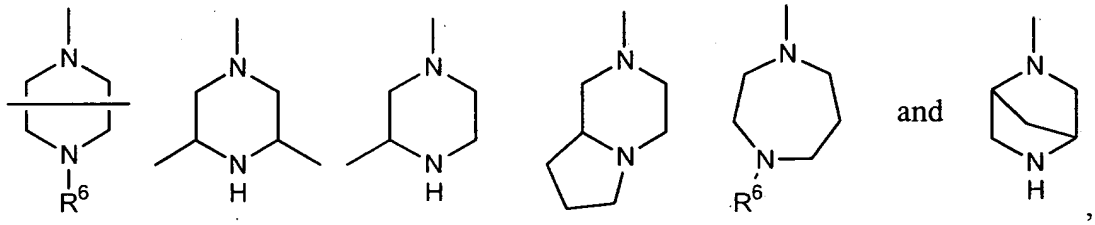


wherein R^6 is H, C_{1-3} alkyl, or benzyl.

43. (Currently Amended) A compound according to claim 1, wherein Ar is -R^9-phenyl; each of R^2 and R^3 is H; and R^4 is independently H or a heterocyclic ring selected from the group consisting of:



R^5 is independently a heterocyclic ring selected from the group consisting of:



wherein R^6 is H, C_{1-3} alkyl, or benzyl; R^9 is C_{1-3} alkyl or C_{2-3} alkenyl, either of which is optionally substituted with phenyl or phenyloxy; each phenyl being optionally substituted with F, Cl, Br, methyl, CF_3, C_{1-4} alkoxyl, OCF_3, CN, NO_2, phenyloxy, phenyl, methylsulfonyl, or -NR^7R^8; and each of R^7 and R^8 being independently H or C_{1-6} alkyl.

44. (Previously Presented) A method of treatment of a disease mediated by the serotonin related 5-HT_6 receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 29.

45. (Cancelled)

46. (Previously Presented) A pharmaceutical composition comprising a compound of claim 29 and a pharmaceutically acceptable carrier.

47. (Currently Amended) The compound according to claim 28, wherein

Ar is

(1) phenyl that is unsubstituted or optionally mono- or poly-substituted with halogen, C_{1-6} alkyl, CF_3, hydroxyl, C_{1-6} alkoxyl, OCF_3, CN, NO_2, phenyloxyl, phenyl, alkylsulfonyl, C_{1-6} alkenyl, $-NH_2$, $-NHR^7$, $-NR^7R^8$, C_{1-6} alkylcarboxyl, formyl, $-NH-CO-C_{1-6}$ alkyl, $-CO-NR^7R^8$, or SR^7 wherein each of R^7 and R^8 is independently H or C_{1-6} alkyl;

(2) 1-naphthyl or 2-naphthyl that is unsubstituted or optionally mono- or poly-substituted with halogen, C_{1-6} alkyl, CF_3, hydroxyl, C_{1-6} alkoxyl, OCF_3, CN, NO_2, phenyloxyl, phenyl, alkylsulfonyl, C_{1-6} alkenyl, $-NH_2$, $-NHR^7$, $-NR^7R^8$, C_{1-6} alkylcarboxyl, formyl, $-NH-CO-C_{1-6}$ alkyl, $-CO-NR^7R^8$, or SR^7 wherein each of R^7 and R^8 is independently H or C_{1-6} alkyl;

(3) cynnamoyl;

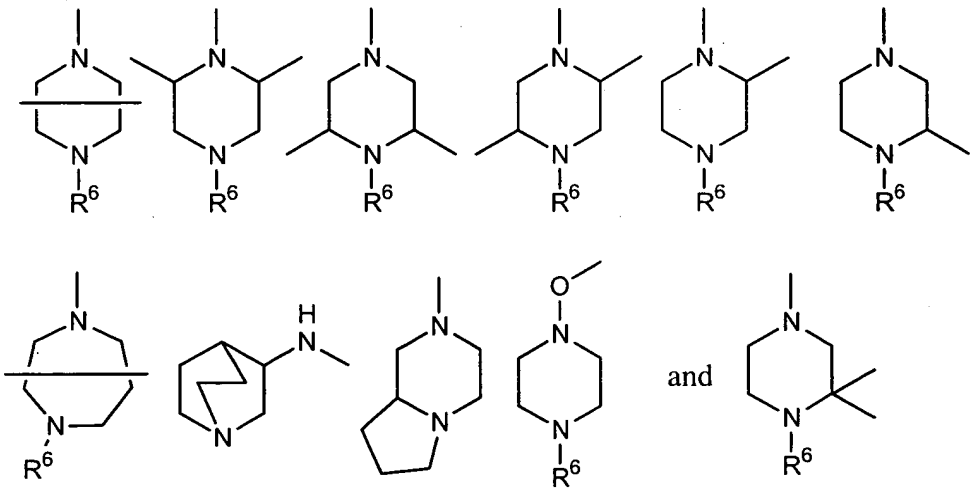
(4) benzyl;

(5) 1,1-diphenylethyl;

(6) a monocyclic or bicyclic heterocyclic ring selected from the group consisting of furyl, pyrrolyl, triazolyl, diazolyl, oxazolyl, thiazolyl, oxadiazolyl, isothiazolyl, isoxazolyl, thiadiazolyl, pyrimidyl, pyrazinyl, thienyl, imidazolyl, pyrazolyl, indolyl, quinolinyl, isoquinolinyl, benzofuryl, benzothienyl, and benzoxadiazolyl, said heterocyclic ring being optionally mono- or di-substituted substituted with halogen or

C_{1-6} alkyl;

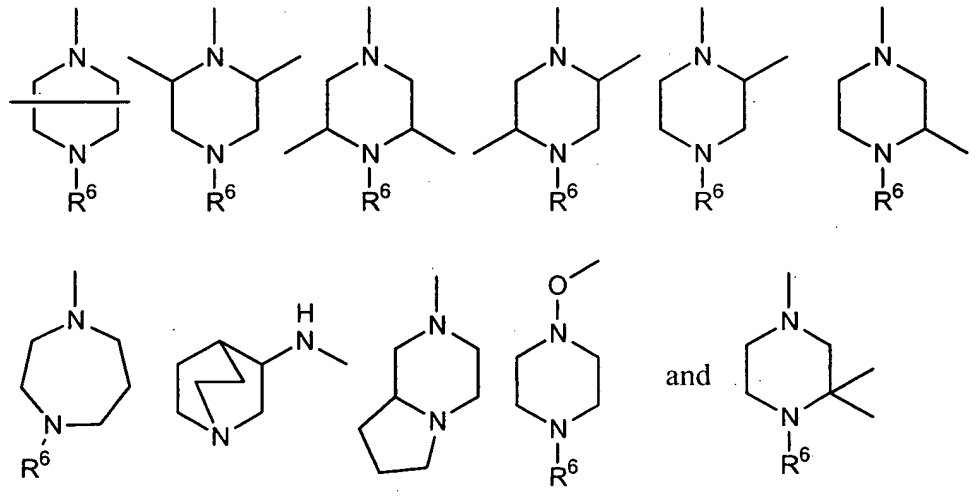
R^4 is H or is selected from the group consisting of:



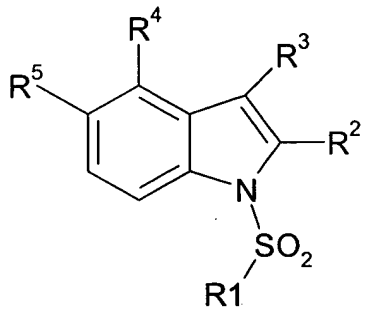
;

wherein R^6 is H, C_{1-6} alkyl, or benzyl; and

R^5 is hydroxy, C_{1-3} alkoxy, F, NO_2, CF_3, OCF_3 or is selected from the group consisting of:



48. (New) A compound of formula (I):



(I)

wherein

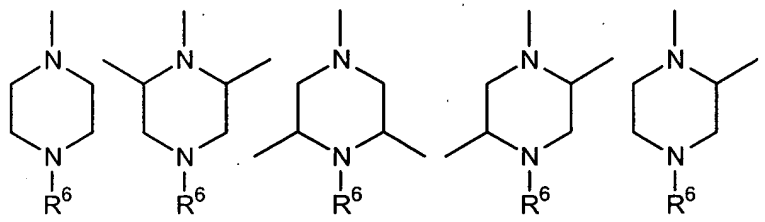
R^1 is $-SO_2Ar$; $-SO_2$(alky)l

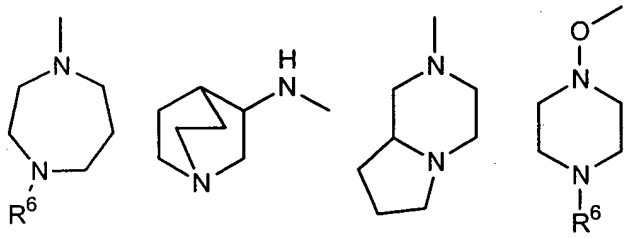
Ar is phenyl, optionally substituted with F, Cl, Br , C_{1-6} alkyl, CF_3, hydroxyl, C_{1-6} alkoxy, OCF_3, NO_2, amino, alkylamino, dialkylamino, methylcarboxyl, aminocarbonyl, or SR^7; wherein R^7 is H or C_{1-6} alkyl; 1- naphthyl, 2- naphthyl; a bicyclic heterocyclic ring or a 5- to 7-membered partially or completely saturated heterocyclic ring each having 1 to 4 heteroatoms selected from the group consisting of oxygen, sulfur, or nitrogen; and alkyl is linear or branched C_{1-6} alkyl;

R^2 is H or linear or branched C_{1-4} alkyl;

R^3 is H, or 3-(1-azabicyclo[2.2.2]oct-2-en)yl, or 3-quinuclidinyl;

R^4 is H or the following amine groups:





wherein R^6 is H or a linear or branched C_{1-6} alkyl; and

R^5 is R^4 or H, hydroxy, C_{1-3} alkoxy, F, NO_2, CF_3, OCF_3;

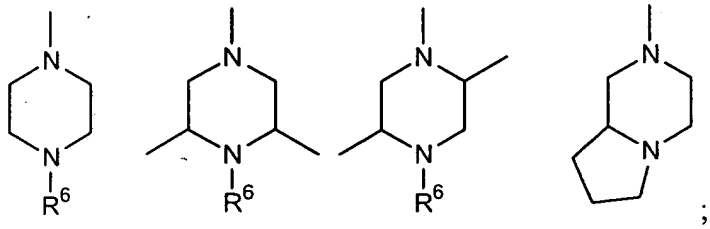
and pharmaceutically acceptable salts, hydrates, or stereoisomeric forms thereof.

49. (New) The compound according to claim 48, wherein

R^1 is $-SO_2Ar$ in which Ar is phenyl substituted with F or C_{1-6} alkyl; 1-naphthyl, 2-naphthyl;

R^2 is H, propyl;

R^4 is selected from the group consisting of:



wherein R^6 is H; and

R^5 is H or C_{1-3} alkoxy.

50. (New) The compound of claim 1, wherein the compound is selected from:

1-(phenylsulfonyl)-4-(1-piperazinyl)-1H-indole,

1-[(4-fluorophenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole,

1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-4-(1-piperazinyl)-1H-indole,

3-(1-azabicyclo[2.2.2]oct-2-en-3-yl)-1-(phenylsulfonyl)-1H-indole,

5-methoxy-1-(phenylsulfonyl)-4-(1-piperazinyl)-1H-indole,

4-(4-ethyl-1-piperazinyl)-1-(phenylsulfonyl)-1H-indole,

1-[(4-methylphenyl)sulfonyl]-4-(4-methyl-1-piperazinyl)-1H-indole,

1-(phenylsulfonyl)-5-(1-piperazinyl)-1H-indole,

4-(*2*,5-dimethyl-1-piperazinyl)-1-(phenylsulfonyl)-1H-indole,

4-(*2*,6-dimethyl-1-piperazinyl)-1-(phenylsulfonyl)-1H-indole,

4-(1,4-diazepan-1-yl)-1-(phenylsulfonyl)-1H-indole,

2-[1-(phenylsulfonyl)-1H-indol-4-yl]octahydropyrrolo[1,2-a]pyrazine1-(2-naphthylsulfonyl)-4-(1-piperazinyl)-1H-indole,

1-(1-naphthylsulfonyl)-4-(1-piperazinyl)-1H-indole,

1-[(4-methylphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole,

N-(1-azabicyclo[2.2.2]oct-3-yl)-N-{1-[(4-methylphenyl)sulfonyl]-1H-indo-4-yl} amine,

2-ethyl-4-(4-ethyl-1-piperazinyl)-1-[(phenyl)sulfonyl]-1H-indole,

4-(*2*,5-dimethyl-1-piperazinyl)-2-ethyl-1-(phenylsulfonyl)-1H-indole,

4-(*2*,5-dimethyl-1-piperazinyl)-1-[(4-methylphenyl)sulfonyl]-2-propyl-1H-indole,

4-(4-ethyl-1-piperazinyl)-1-[(4-methylphenyl)sulfonyl]-2-propyl-1H-indole,

4-(4-ethyl-1-piperazinyl)-5-fluoro-1-[(4-methylphenyl)sulfonyl]-1H-indole,

5-fluoro-4-(1-piperazinyl)-1-{[4-(trifluoromethyl)phenyl]sulfonyl}-1H-indole,

5-chloro-1-(phenylsulfonyl)-4-(1-piperazinyl)-1H-indole,

1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-5-methoxy-4-(1-piperazinyl)-1H-indole,

1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-5-(1-piperazinyl)-1H-indole,

1-[(4-methylphenyl)sulfonyl]-4-(3-methyl-1-piperazinyl)-1H-indole, or

1-[(4-methylphenyl)sulfonyl]-4-(piperidinyloxy-1H-indole.

51. (New) The compound of claim 50, wherein the compound is 1-(phenylsulfonyl)-4-(1-piperazinyl)-1H-indole.

52. (New) The compound of claim 50, wherein the compound is 1-[(4-fluorophenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole.

53. (New) The compound of claim 50, wherein the compound is 1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-4-(1-piperazinyl)-1H-indole.

54. (New) A method of treatment of a disease mediated by the serotonin related 5-HT_6 receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 48.

55. (New) A method of treatment of a disease mediated by the serotonin related 5-HT_6 receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 49.

56. (New) A method of treatment of a disease mediated by the serotonin related 5-HT_6 receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 50.

57. (New) The method as in claims 54, 55, or 56, in which the disease is a CNS disorder.

58. (New) The method as in claims 54, 55, or 56, in which the disease is obesity.

59. (New) A pharmaceutical composition comprising a compound of claim 48 and a pharmaceutically acceptable carrier.

60. (New) A pharmaceutical composition comprising a compound of claim 49 and a pharmaceutically acceptable carrier.

61. (New) A pharmaceutical composition comprising a compound of claim 50 and a pharmaceutically acceptable carrier.